



Launch Mission Execution Forecast

Mission: Falcon 9 Sirius XM-8

Issued: 3 Jun 2021 / 0800L (1200Z)

Valid: 6 Jun 2021 / 0025 – 0226L (0425 – 0626Z)



Forecast Discussion: The axis of the western Atlantic ridge will continue to wobble just to the north of the area the next few days, continuing to allow deep tropical moisture to stream across the region through the end of the week. Lighter southerly steering flow will bring a slower inland moving East Coast sea breeze, along with higher rain and storm chances to the Spaceport in the afternoons. However, the threat for late night and early morning onshore moving Atlantic showers will continue. A weakening boundary will make it into North Florida on Saturday, giving a boost to the development of afternoon showers and storms. Activity is expected to diminish along the east coast by sunset leaving lingering convective debris for the primary launch window late Saturday night. A few Atlantic showers cannot be ruled out with the lingering boundary aided instability.

The ridge axis lifts north during the day on Sunday as the boundary dissipates, deepening the southeasterly flow and pushing the east coast sea breeze more quickly across the peninsula early in the afternoon. Drier conditions look on tap leading into the backup launch window late Sunday night with only the threat for cumulus associated with a stray Atlantic shower.

Launch Day	Probability of Violating Weather Constraints						
	40%	Primary Concerns: Cumulus Cloud Rule, Debris Cloud Rule					
	Weather Conditions					Additional Risk Criteria	
	Weather/Visibility:	Isold. Showers / 7 mi.	Clouds				Upper-Level Wind Shear: Low
			Type	Coverage	Base (ft)	Tops (ft)	
24-Hour Delay	Temp/Humidity:	77°F / 86%	Cumulus	Scattered	3,000	10,000	Booster Recovery Weather: Low
	Liftoff Winds (200'):	160° 12 - 17 mph	Altocumulus	Broken	13,000	20,000	Solar Activity: Low
	Probability of Violating Weather Constraints						
	20%	Primary Concerns: Cumulus Cloud Rule					
	Weather Conditions					Additional Risk Criteria	
	Weather/Visibility:	None / 7 mi.	Clouds				Upper-Level Wind Shear: Low
			Type	Coverage	Base (ft)	Tops (ft)	
	Temp/Humidity:	77°F / 81%	Cumulus	Scattered	3,000	9,000	Booster Recovery Weather: Low
	Liftoff Winds (200'):	130° 10 - 15 mph					Solar Activity: Low
Note: The Probability of Violation (POV) is the chance that a Lightning Launch Commit Criteria (LLCC) or certain user constraints (surface winds, precipitation, and temperatures, etc.) will be violated during the launch window. It does not take into account upper-level wind shear, booster recovery weather, and solar activity.							
Next Forecast Will Be Issued		4 Jun 2021					